

Application Serial No: 10/064,924
Amendment dated: September 9, 2003
Reply to office action of May 9, 2003

In the Claims:

Claim 1. (original) A gas storage capsule comprising:

a gas impermeable body with a sealed channel and a sorbent-free portion of the body;

particles of a sorbent material disposed inside the gas impermeable body; and

the sorbent-free portion being of sufficient volume to receive a predetermined amount of a solidified gas, which solidified gas can be inserted into the gas impermeable body.

Claim 2. (original) The gas storage capsule of Claim 1, wherein the sealed channel comprises a valve with an elastic element, the elastic element being capable of unsealing the channel when a pressure inside the gas impermeable body exceeds a pressure outside the gas impermeable body by a predetermined value.

Claim 3. (original) The gas storage capsule of Claim 1, wherein the gas impermeable body is cylindrical and comprises at least two portions joining each other at a joint.

Claim 4. (original) The gas storage capsule of Claim 2, wherein the gas impermeable body is cylindrical and comprises at least two portions joining each other at a joint.

Claim 5. (original) The gas storage capsule of Claim 3, further comprising a valve disposed in the joint.

Claim 6. (original) The storage gas capsule of Claim 4, further comprising a valve disposed in the joint.

Claim 7. (original) The gas storage capsule as in Claim 6, wherein the elastic element is a

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petal-shaped portion of the gas impermeable body.

Claim 8. (original) The gas storage capsule of Claim 1, wherein the sealed channel
comprises

a molecular sieve permeable only by the gas.

Claim 9. (original) The gas storage capsule as in Claim 7, wherein the sealed channel
contains

a rupture membrane.

Claim 10. (original) The gas storage capsule as in Claim 8, wherein the sealed channel
contains

a rupture membrane.

Claim 11. (original) A method of filling a capsule with a gas comprising:
placing a sorbent material into the capsule comprising a gas impermeable body, the gas
impermeable body having a sorbent-free portion and being capable of releasing the gas
and retaining the sorbent material inside the gas impermeable body;

placing a predetermined amount of a solidified gas into the sorbent-free portion; and

sorbing the gas inside the gas impermeable body by the sorbent material.

Claim 12. (original) The method of Claim 11, wherein placing the predetermined
amount of
the solidified gas into the sorbent-free portion is done before placing the sorbent material
into the capsule.

Claim 13. (original) The method of Claim 12, wherein the gas impermeable body is
cylindrical
and is comprised of at least two portions.